Appendix

MSE Interoperability

A-1.   Planning for MSE Interface

a.   The requirement for establishing and controlling communications remains from higher to lower, left to right, and supporting to supported. With MSE that doctrine transcends more than just establishing and maintaining network integrity. The element in the higher, left, or supporting category also supplies the requisite equipment when augmentation is needed and coordinates and provides the necessary frequencies, frequency plans, COMSEC keys, codes, software, and control mechanisms.

b.   MSE interface with other systems, such as EAC, TRI-TAC, or NATO, requires detailed planning and coordination. Signal planners must coordinate signal timing relationships, digital trunk group numbering and channel assignments, area codes, digit editing, and exchange of TG and AIRK COMSEC keys to ensure successful switch interface. Normally, the MSE gateway switch will modify its data base to accommodate the TRI-TAC switch.

A-2.   Installation Parameters for MSE Interface

The CX-11230 cable used to interconnect the various assemblages is issued in ¼-mile reels. Tables A-1 through A-7 give cable adjustment settings for lengths of cable from ¼ to 1 mile (1 to 4 reels). The "cable reels" line lists the four possible cable lengths as 1/2/3/4 for 1, 2, 3, and 4 reels respectively. The cable adjustment for each cable length is similarly listed for transmit and receive at each assemblage. For example, a transmit listing of 4/4/4/4 means that the setting is 4 for each of the four possible cable lengths. The letters a, b, c, d, and e are used for settings of 0, ¼, ½, ¾, and 1 mile respectively. NA means no adjustment or not applicable.

Table A-1. NS to EAC via AN/TRC-151.

	NS	TRC-151	TRC-151	TTC-39/39A
Timing	Master	NA	NA	Master
Bit rate	576 kb/s	576 kb/s	576 kb/s	576 kb/s
Modulation	Dipulse	Dipulse	Dipulse	Dipulse
Cable reels	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable xmit	4/4/4/4	e/e/e/e	e/e/e/e	4/4/4/4
Cable rcv	1/2/3/4	b/c/d/e	b/c/d/e	1/2/3/4
CCS channel	1st	NA	NA	1st
RSS channel	NA	NA	NA	NA
Traffic channels	2-32	NA	NA	2-32
Control node	No	No	Yes	Yes
Glare	Accept	NA	NA	Reject

Table A-2. NS to EAC via AN/TRC-170.

	NS	TRC-170	TRC-170	TTC-39/39A
Timing	Master	NA	NA	Master
Bit rate	512 kb/s	512 kb/s	512 kb/s	512 kb/s
Modulation	Diphase	Diphase	Diphase	Diphase
Cable reels	1/2/3/4	NA	NA	1/2/3/4
Cable xmit	4/4/4/4	NA	NA	4/4/4/4
Cable rcv	1/2/3/4	NA	NA	1/2/3/4
CCS channel	1st	NA	NA	1st
RSS channel	NA	NA	NA	NA
Traffic channels	2-32	NA	NA	2-32
Control node	No	No	Yes	Yes
Glare	Accept	NA	NA	Reject

Table A-3. NS to EAC via AN/TSC-85A/93A

(using TD-1337 TRI-TAC port).

	NS	TSC-93A	TSC-85A	TTC-39/39A
Timing	Master	CNCE	CNCE	Master
Bit rate	576 kb/s	576 kb/s	576 kb/s	576 kb/s
Modulation	Diphase	Diphase	Diphase	Diphase
Cable reels	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable xmit	4/4/4/4	1/2/3/4	1/2/3/4	4/4/4/4
Cable rcv	4/4/4/4	1/2/3/4	1/2/3/4	4/4/4/4
CCS channel	1st	NA	NA	1st
RSS channel	NA	NA	NA	NA
Traffic channels	2-32	2-32	2-32	2-32
Control node	No	No	Yes	Yes
Glare	Accept	NA	NA	Reject

Table A-4. NS to EAC via AN/TSC-85A (using MD-1026).

	NS	TSC-85A	TSC-85A	TTC-39/39A
Timing	Master	CNCE	CNCE	Master
Bit rate	576 kb/s	576 kb/s	576 kb/s	576 kb/s
Modulation	Diphase	Diphase	Diphase	Diphase
Cable reels	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable xmit	4/4/4/4	NA	NA	4/4/4/4
Cable rcv	4/4/4/4	NA	NA	1/2/3/4
CCS channel	1st	NA	NA	1st
RSS channel	NA	NA	NA	NA
Traffic channels	2-32	2-32	2-32	2-32
Control node	No	No	Yes	Yes
Glare	Accept	NA	NA	Reject

Table A-5. NS to NS via AN/TSC-85A/93A

(using TD-1337 TRI-TAC port).

	NS	TSC-85A	TRC-93A	NS
Timing	Master	CNCE	CNCE	Master
Bit rate	1152 kb/s	1152 kb/s	1152 kb/s	1152 kb/s
Modulation	Diphase	Diphase	Diphase	Diphase
Cable reels	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable xmit	4/4/4/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable rcv	4/4/4/4	1/2/3/4	1/2/3/4	4/4/4/4
CCS channel	1st	NA	NA	1st
RSS channel	2d	NA	NA	2d
Traffic channels	3-64	NA	NA	3-64
Control node	Yes	Yes	No	No
Glare	Reject	NA	NA	Accept

Table A-6. NS to NS via AN/TSC-85A (using MD-1026).

	NS	TSC-85A	TRC-85A	NS
Timing	Master	CNCE	CNCE	Master
Bit rate	1152 kb/s	1152 kb/s	1152 kb/s	1152 kb/s
Modulation	Diphase	Diphase	Diphase	Diphase
Cable reels	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable xmit	4/4/4/4	NA	NA	4/4/4/4
Cable rcv	1/2/3/4	NA	NA	1/2/3/4
CCS channel	1st	NA	NA	1st
RSS channel	2d	NA	NA	2d
Traffic channels	3-64	NA	NA	3-64
Control node	Yes	Yes	No	No
Glare	Reject	NA	NA	Accept

Table A-7. NS to LENS via AN/TSC-85A/93A

(using TD-1337 TRI-TAC port).

	NS	TSC-85A	TSC-93A	LEN
Timing	Master	CNCE	CNCE	Master
Bit rate	576 kb/s	576 kb/s	576 kb/s	576 kb/s
Modulation	Diphase	Diphase	Diphase	Diphase
Cable reels	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Cable xmit	4/4/4/4	1/2/3/4	1/2/3/4	4/4/4/4
Cable rcv	4/4/4/4	1/2/3/4	1/2/3/4	4/4/4/4
CCS channel	1st	NA	NA	1st
RSS channel	2d	NA	NA	2d
Traffic channels	3-32	NA	NA	3-32
Control node	Yes	Yes	No	No
Glare	Reject	NA	NA	Accept